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10/550,240	09/23/2005	Kustaa Nyholm	PLA078-820711	2216
54042	7590	05/04/2009	EXAMINER	
Cozen O'Connor 250 PARK AVENUE NEW YORK, NY 10177			NGUYEN, KIMNHUNG T	
			ART UNIT	PAPER NUMBER
			2629	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/550,240	Applicant(s) NYHOLM, KUSTAA	
	Examiner KIMNHUNG NGUYEN	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/4/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Preliminary amendment filed on 9/23/05 has been entered.
2. This application has been examined. The claims 1-12 are pending. The examination results are as following.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeckl (US 5,300,926 admitted by applicant) in view of FRICKER et al. (US 2001/0013855).

As to claim 1, Stoeckl discloses in figs. 1 and 8, a dental apparatus which comprises a dental device, a graphic display (display elements, see col. 8, line 37-38) and a user interface (touch screen keyboard 74, fig. 8) connected functionally to one another (see serial interface 73), the user interface being arranged to be used for controlling functions (see col. 8, lines 20-24) of the dental device, wherein

the user interface is a touch screen keyboard 74, and

the graphic display (display elements) comprises means for showing symbols (light spots) describing the control functions of the dental device (see col. 8, lines 38-53) and a cursor (see picture screen cursor, see col. 7, lines 62-63), and

Art Unit: 2629

the dental apparatus further comprises means for moving (see by hand, see col. 8, lines 22-24) and controlling the cursor (picture screen) in response to a touch of a pointer means (start point, see col. 10, lines 3-12) and its movement should be on the a surface of the touch screen keyboard 74, (see when displaying the visual field by a picture screen, to arrange a foil keyboard or a touch screen on the picture screen, see col. 8, lines 20-22). However, Stoeckl does not specifically disclose the user interface is a touchpad. FRICKER et al. disclose in figs. 1-2, a digital system (100) comprising a touch pad (200) having capacitive sensor 230, see fig. 2, see 0045).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the digital system comprising a touch pad as taught by FRICKER et al. into the dental apparatus having a graphic display of Stoeckl for producing the claimed invention because this would provide capacitive sensor will the presence of a finger, but will not detect the presence of a pen (see Stoeckl, see 0052).

As to claim 2, Stoeckl discloses the dental apparatus further, wherein the functional connection between the touch screen keyboard and the graphic display is arranged through a computer (see touch screen keyboard control the individual functions of the apparatus by hand, and the visual field can also be provided with soft keys, see col. 8, lines 24-30). However, Stoeckl does not disclose the user interface (touch screen keyboard) is a touch pad. FRICKER et al. disclose in figs. 1-2, a digital system (100) comprising a touch pad (200) having capacitive sensor 230, see fig. 2, see 0045) as discussed in claim 1.

Art Unit: 2629

As to claim 3, Stoeckl discloses the dental apparatus further, wherein the touch screen keyboard is arranged to control the computer functionally connected to the dental device. However, Stoeckl does not disclose the user interface (touch screen keyboard 74) is a touch pad. FRICKER et al. disclose in figs. 1-2, a digital system (100) comprising a touch pad (200) having capacitive sensor 230, see fig. 2, see 0045) as discussed in claim 1.

As to claim 4, Stoeckl discloses the dental apparatus, wherein the touch screen keyboard (74) is arranged to control the dental device through the computer (see col. 8, lines 22-30). However, Stoeckl does not disclose the touch screen keyboard is a touch pad. FRICKER et al. disclose in figs. 1-2, a digital system (100) comprising a touch pad (200) having capacitive sensor 230 and resistive sensor 210, see fig. 2, see 0045) as discussed in claim 1.

As to claim 5, Stoeckl discloses a dental apparatus further, wherein the pointer means (start point). However, Stoeckl does not disclose specifically the pointer means is a pointer pen or finger. FRICKER et al. disclose in fig. 2, a touch pad 200 comprising a pointer is a pen or finger (260, see pointing element 260 as finger or pen, see [0032]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the pointer means is a finger or pen as taught by FRICKER et al. into the apparatus having graphic display of Stoeckl for producing the claimed invention because this would provide to the user may use to point and move on the touch pad, see [0032]).

As to claim 6, Stoeckl does not disclose further the touch pad comprises a capacitive or a resistive contact surface. FRICKER et al. disclose in figs. 1-2, a digital system (100) having a

Art Unit: 2629

touch pad (200) comprising a capacitive sensor 230 and a resistive sensor 210, see fig. 2, see 0045).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the digital system having a touch pad comprising a capacitive sensor and a resistive sensor as taught by FRICKER et al. into the dental apparatus having a graphic display of Stoeckl for producing the claimed invention because this would provide the capacitive sensor will the presence of a finger, but will not detect the presence of a pen (see Stoeckl, see 0052).

As to claim 9, Stoeckl discloses a dental, wherein the touch screen keyboard is integrated into the dental apparatus (because the touch screen keyboard 74 control the individual functions of the apparatus (see col. 8, lines 23-24). However, Stoeckl does not specifically disclose the user interface is a touchpad. FRICKER et al. disclose in figs. 1-2, a digital system (100) comprising a touch pad (200) having capacitive sensor 230 and resistive sensor 210, see fig. 2, see 0045) as discussed in claim 1.

As to claim 10, Stoeckl discloses in fig. 1, a dental apparatus, wherein the touch screen keyboard (74) and a back rest (12) of a patient chair included in the dental apparatus. However, Stoeckl does not specifically disclose the touch screen keyboard is a touch pad and the touch pad is arranged to be placed under a back rest of a patient chair included in the dental apparatus. FRICKER et al. disclose in figs. 1-2, a digital system (100) comprising a touch pad (200) having capacitive sensor 230, and mounted on a substrate 240, see fig. 2, see 0031).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the digital system comprising a touch pad as taught by FRICKER et al.

Art Unit: 2629

into the dental apparatus having a graphic display of Stoeckl for producing the claimed invention because this would provide capacitive sensor will the presence of a finger, but will not detect the presence of a pen (see Stoeckl, see 0052).

Stoeckl and FRICKER et al. also do not specifically disclose the touch pad is arranged to be placed under a back rest.

It would have been obvious design choice to have the touch pad is arranged to be placed under a back rest as the claimed invention since such a modification would have involved a mere to shift location of parts of the apparatus. A shifting in location is generally recognized as being within the level of ordinary skill in the art touch pad can placed anywhere in the apparatus.

See In re Japikse, 86, USPQ 70 (CCPA 1950).

As to claim 11, Stoeckl discloses a dental apparatus, wherein the touch screen keyboard (74) is arranged to form control information (microcontroller 70, fig. 9) for the dental device through the computer (touch screen keyboard, see col. 8, lines 22-30) so that the control information (70) is modified on the basis of the patient information included in the computer (corresponds to microcontroller controls the individual operator elements are connected to the serial interface 73, and controlling a drive motor for adjusting the height of the dental chair, see col. 8, lines 66-68, and col. 9, lines 1-9).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeckl (US 5,300,926 admitted by applicant) in view of FRICKER et al. (US 2001/0013855) as applied to claim 1 above, and further in view of Lordo (US 5,558,371)

Art Unit: 2629

As to claim 8, Stoeckl discloses a dental apparatus, having touch screen keyboard.

FRICKER et al. disclose a layer of paint (not shown) may be applied directly substrate 240, and a material (not shown) may also applied to the surface of the substrate of substrate 240 to give an appropriate feel and texture to touchpad (200, see 0047). However, Stoeckl and FRICKER et al. do not specifically disclose wherein a detachable and disinfectable or disposable film is arranged to be attached to the contact surface.

Lordo discloses in fig. 1, a resuscitator apparatus comprising a detachable and disinfectable and disposable film is attached to the squeeze bag (see col. 12, lines 8-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the a detachable and disinfectable or disposable film as taught by Lordo attached to the contact surface of FRICKER' s system for producing the claimed invention because this would provide a product of low cost and high reliability and also easy to perform by any hospital technician or other health care worker (see col. 12, lines 11-12 and lines 15-16).

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeckl (US 5,300,926 admitted by applicant) in view of Smith (US 6,204,837).

As to claim 12, Stoeckl discloses in figs. 1, 8, a method of controlling a dental apparatus, which comprises a dental device, a graphic display (display elements, see col. 8, lines 37-38)and a user interface (touch screen keyboard) connected functionally to one another (see serial interface 73), the user interface being used to control functions of the dental device (see col. 8,lines 20-24),wherein the user interface is a touch screen keyboard which is functionally connected to the graphic display (see soft keys can serve the purpose of manual actuation of the

Art Unit: 2629

functions displayed on the picture screen (see col. 8, lines 20-28), which is used to show symbols (light spots) describing the control functions of the dental device and a cursor (see picture screen cursor, see col. 7, lines 62-63), which can be moved and controlled through the touch screen keyboard, whereby the dental apparatus is controlled by moving the cursor (picture screen cursor) on the display to the desired control function symbol. However, Stoeckl does not specifically disclose the touch screen keyboard is touchpad and desired control function symbol by selecting the function in question.

Smith discloses in fig. 1, an apparatus and method for configuring a computing device having a touchpad (25, see col. 2, lines 50-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the touch pad as taught by Smith into the dental apparatus having graphic display of Stoeckl for producing the claimed invention because this would be configured for positioning main cursor or as an input for a stylus or pen (see col. 2, lines 52-54).

Smith also discloses selecting the function in question with multiple pointing devices (see figs. 2-5, see pointer control selected ? (102), display functions 114, function selected ? (116), touchpad selected? (108), fig. 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement selecting the function in question as taught by Smith into the dental apparatus having graphic display of Stoeckl for producing the claimed invention because this would provide to the user as appropriate and the selected function is assigned to the appropriate device (see col. 3, lines 47-50).

Allowable Subject Matter

7. **Claim 7** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a dental apparatus which comprises a dental device, a graphic display and a user interface connected functionally to one another, the user interface being arranged to be used for controlling functions of the dental device, wherein the user interface is a touch pad, and the graphic display comprises means for showing symbols describing the control functions of the dental device and a cursor, and the dental apparatus further comprises means for moving and controlling the cursor in response to a touch of a pointer means and its movement on the a surface of the touch pad. The combination of the closest prior art of Stoeckl (US 5,300,926), FRICKER et al. (US 2001/0013855)Smith (6,204,837) and Lordo (US 5,558,371) shown a similar invention, however they fail to teach or suggest that wherein the touch pad is arranged to form control information for the dental device in response to the fact that the contact surface of the touch pad is pressed or something slides on it so that the material layers included in the touch pad touch one another at the a point in question, in which case the a current flow is interrupted in the an electrode network included in the touch pad.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMNHUNG NGUYEN whose telephone number is (571)272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kimnhung Nguyen/
Examiner, Art Unit 2629

Application/Control Number: 10/550,240

Page 11

Art Unit: 2629